

**AMENDMENT**

**IN THE CLAIMS**

Please amend the claims as indicated in Appendix A submitted herewith according to the revision to 37 C.F.R. § 1.121 concerning a manner for making claim amendments.

**REMARKS**

Claims 1-24 are presently pending in the captioned application.

Subsequent to the present amendment, claims 1-11 and 29-31 are pending. Claims 1 and 7 are currently amended, claims 12-24 canceled without disclaimer or prejudice as to the subject matter contained therein with claims 25-28 canceled in a previous amendment, claims 2-6 and 8-11 as previously pending and new claims 29-31 added.

In an Interview of October 27, 2003, the Examiner noted Example 1 on page 9 of WO 91/16376 ("WO '376") for a film having 16  $\mu\text{m}$  in thickness in response to Applicants' observation that the outstanding Office Action failed to treat Applicants previously added limitation directed to thickness of the film. See Response of September 3, 2003. The Examiner then suggested during the Interview that limitations distinguishing the polymer *per se* or at

least the method of its making be introduced into the claims. Applicants acknowledge the Examiner's suggestions and have made the following amendments.

Independent claims 1 and 7 have been amended to recite that the film for stretch-wrapping is formed according to a T-die cast method. Support for the limitation can be found in now canceled claim 19.

New claims 29 and 30 depend from claims 1 and 7, respectively and recite the range of tensile stress in a machine direction when the claimed film is stretched by 100%. Support for the range can be found in Examples 1 and 3 in Table 1 of the specification on page 16 at line 23.

New claim 31 recites a film where the forming of the film is effected according to an inflation method. Support for the range of tensile stresses for an inflation method can be found in Examples 2 and 4 in Table 1 of the specification on page 16 at line 23. Claim 31 is novel and unobvious over the cited art.

No new matter within the meaning of § 132 has been added by any of the amendments.

Accordingly, Applicants respectfully request the Examiner to reconsider and allow all claims pending in this application in view of the claim amendments and following remarks.

**1. Rejection of Claims 1-24**  
**under 35 U.S.C. § 102(b)**

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The Office Action rejects claims 1-24 under 35 U.S.C. § 102(b) as being anticipated by WO 91/16376 ("WO '376"). The Office Action states:

WO'376 discloses a packaging film with good clinging properties comprising a terpolymer of at least 50% of ethylene, 2-20% by weight of an unsaturated monocarboxylic acid having 3-8 carbon atoms and 2-20% of a moiety derived from at least one alkyl acrylate, alkyl methacrylate and mixtures thereof, wherein alkyl radical contains 2-12 carbon atoms (see page 3, lines 25-34). The low level of sorbitan fatty acid ester can be added to improve antifogging properties (see page 7, lines 9-19). This expressly meets all the limitations of the instant claims 1-4 and 12-15.

With regard to claims 5, 10, 16-22, 25 and 27, which are concerned with the stretching properties of the films, since the films of WO'376 are identical in their chemical make-up to the instantly claimed films and are made by essentially the same method as instantly claimed films, such properties inherently present in the films of WO'376. Products of identical chemical composition cannot have mutually exclusive properties. A chemical composition and its properties are inseparable. Therefore if the prior art teaches the identical chemical structure, the properties and characteristics applicant discloses and/or claims are necessarily present. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore the limitations of claims 5, 10, 16-22, 25 and 27 are inherently met by WO'376.

The above rejections were also made in the

sense of In re Fitzgerald or In re Spada, which settles that when the claimed compositions are not novel, they are not rendered patentable by recitation of properties, whether or not these properties are shown or suggested in the prior art. The properties not disclosed in the cited reference are believed to be inherent of compositions identical to those instantly claimed.

The Examiner then responded to Applicants previous Response in the section entitled "Response to Argument" by stating:

. . . there is absolutely no indication and/or guidance in the instant specification, in fact no mentioning at all about any specifics of the structure and/or molecular arrangement of claimed polymers.

Applicants respectfully traverse the anticipation rejection because WO '376 does not teach each and every claimed limitation of the amended claims. In particular, WO '376 fails to teach forming a film according to a T-die cast method. Although the Office Action is correct in asserting that determination of patentability does not depend on the method of production but rather the product itself, Applicants note that in certain situations, the limitations directed to the process of making may indeed impart patentability where Applicants rebut the allegation that the products are the same with evidence establishing a difference between the claimed product and the prior art product.

Accordingly, Applicants now provide evidence that the

presently claimed film made according to the T-die cast method results in remarkably improved tensile properties and has the totally unexpected property of being easily tearable in the transverse direction. This increased anisotropy in the longitudinal or transverse direction is a completely new and unanticipated physico-mechanical property for resin compositions containing an ethylene/(meth)acrylic acid/(meth)acrylic acid ester terpolymer.

Turning to the rule, the Federal Court held that the Examiner should consider the structure **implied** by the process steps when assessing the patentability of product-by-process claims over the prior art, especially where the manufacturing steps impart distinctive structural characteristics to the final product. See e.g., In re Garner, 162 U.S.P.Q. 221, 223 (C.C.P.A. 1979) (holding that the limitation of "interbonded by interfusion" to limit structure of the claimed composite and noting that terms such as "welded," "intermixed," "ground in place," "press fitted," and "etched" are capable of construction as structural limitations.) Even if the claimed product appears to be similar to the known product, an unexpected property rebuts the assertion that the product is no different from that of the prior art and imparts patentability over the known product.

Turning to the rule regarding a rejection under § 102, the

Federal Circuit held that anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Those elements must be expressly disclosed as in the claim. In re Bond, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). The Federal Circuit also ruled that the prior art reference must also be enabling, thereby placing the allegedly disclosed matter in the possession of the public. In re Brown, 241 U.S.P.Q. 245, 249 (C.C.P.A. 1964). In order to accomplish this, the reference must be so particular and definite that from it alone, without experiment or the exertion of his own inventive skill, any person versed in the art to which it pertains could construct and use it. Id. at 250.

In the present application, this is clearly not the case given that nothing is disclosed by WO '376 with regard to making a film by a T-die case method. In particular, the amended independent claims 1 and 7 now recite the limitation directed to its making wherein the film for stretch-wrapping is formed of a resin composition containing, as a chief component, an ethylene/(meth)acrylic acid/(meth)acrylic acid ester terpolymer that contains not more than 7% or not less than 5% by weight of a (meth)acrylic acid ester unit, **wherein the forming of said film is effected according to T-die cast method** and the film has a stress

in a machine direction (MD) of said film within a range of from 20 to 40 MPa when the film is stretched by 100%, and a ratio (MD/TD) of stress in the machine direction to the stress in a traverse direction within a range of from 2 to 8 when the film is stretched by 100% in each of said directions and having a film thickness of 5 to 20  $\mu\text{m}$ .

The limitation directed to a T-die cast method patentably distinguishes the claimed product from the prior art and thereby rebuts the Office Action's assertion that the prior art compounds are essentially the same as those presently claimed. In particular, when the presently claimed film is made according to a T-die cast method, the film unexpectedly has a stress in a machine direction (MD) within a range of from 20 to 40 MPa when stretched by 100% and a ratio (MD/TD) of the stress in a machine direction to the stress in traverse direction within a range of from 2 to 8 when the film is stretched by 100% in each of said directions and further having a thickness of 5 to 20  $\mu\text{m}$ . WO '378 fails to either expressly or inherently disclose any of these limitations.

Although WO '376 very broadly teaches that films can be made by bubble extrusion or orientation processes known as blown film processes, the presently claimed T-die cast method is neither inherently nor expressly encompassed by this teaching. One of ordinary skill would not have been able to make the presently

claimed film without the expenditure of his own inventive effort in order to produce the remarkable film presently claimed by Applicants.

The newly added limitation directed to the T-die cast method is not merely a recitation describing an inherent property but rather a description of the presently claimed film brought about the claimed step of a T-die cast method. Since the known product and the claimed product are different wherein the T-die process results in completely different properties, the presently claimed film is not the same as that disclosed by the prior art. Hence, the presently claimed film cannot be said to be anticipated by WO '376.

Accordingly, Applicants respectfully submit that they have met their burden to show that the presently claimed polymer compositions are different from those described by WO '376 by making a film according to a T-die cast method. Applicants further submit that the presently claimed invention is not anticipated by WO '376 and respectfully request the Examiner to reconsider and withdraw the § 102(b) rejection.



**2. Rejection of Claims 1-24**  
**under 35 U.S.C. § 103(a)**

The Office Action rejects claims 1-24 under 35 U.S.C. § 103(a) as obvious over WO '376. The Office Action states:

The above claims are product-by-process claims, wherein the limitation not disclosed in WO'376 is that the film is made by a T-die method. However, in terms of the chemical components and their amounts in a terpolymer the films of WO'376 and the instant claims are identical, which was addressed in the 102(b) rejection. Furthermore, both films are prepared by an extrusion method, the non-specified difference is the shape of die. Applicants are reminded that patentability of the product is based on the product formed - not by method by which it was produced, In re Thorpe, 777 F 2d 695, 227, USPQ 964 (Fed. Cir 1985).

Furthermore, because of the nature of product-by-process claims, the Examiner cannot ordinarily focus on the precise difference between the claimed product and the disclosed product. It is then Applicants' burden to prove that an unobvious difference exists. See In re Marosi, 218 USPQ 289, 292-293 (CAFC 1983). See also footnote 11 O.G. Notice 1162 59-61, wherein a 35 USC 102/103 rejection is authorized in the case of product-by-process claims because the exact identity of the claimed product or the prior art product cannot be determined by the Examiner. In re Brown, 173 USPQ 685 (CCPA 1972), the Court of Customs and Patent Appeals (CCPA) explicitly approved the 102/103 rejection of a product-by-process claim over a reference which showed a product which appeared to be identical or only slightly different from the claimed product.

The Examiner then responded to Applicants previous Response in the section entitled "Response to Argument" by stating:

As discussed in the previous and present Office Action, the chemical identity of a composition and its properties are inseparable. In the alternative, the rejection is made under 35 USC 103(a) shifting a burden to Applicants to show the composition identical to the instantly claimed one can have different physico-mechanical properties, and if there is something in a composition that makes it distinguishable from the composition of the prior art . . .

Applicants respectfully traverse the obviousness rejection because WO '376 does not satisfy the first prong of the *prima facie* test. In particular, WO '376 fails to teach the claimed limitation of forming a film according to a T-die cast method. Although the Office Action is correct in asserting that determination of patentability does not depend on the method of production but rather the product itself, Applicants note that in certain situations, the limitations directed to the process of making may indeed impart patentability where Applicants rebut an allegation of obviousness with evidence establishing a difference between the claimed product and the prior art product brought about by the claimed method of making.

Accordingly, Applicants now provide evidence that the presently claimed film made according to the T-die cast method results in a completely different product over a general teaching

of simply extruding the products. The presently claimed films unexpectedly have remarkably improved tensile properties. The claimed films also have the totally unexpected property of being easily tearable in the transverse direction. This increased anisotropy in the longitudinal or transverse direction is a completely new and unobvious physico-mechanical property for resin compositions containing an ethylene/(meth)acrylic acid/(meth)acrylic acid ester terpolymer.

Turning to the rule, the Federal Court held that the Examiner should consider the structure **implied** by the process steps when assessing the patentability of product-by-process claims over the prior art, especially where the manufacturing steps impart distinctive structural characteristics to the final product. See e.g., In re Garner, 162 U.S.P.Q. 221, 223 (C.C.P.A. 1979) (holding that the limitation of "interbonded by interfusion" to limit structure of the claimed composite and noting that terms such as "welded," "intermixed," "ground in place," "press fitted," and "etched" are capable of construction as structural limitations.) Even if the claimed product appears to be similar to the known product, an unexpected property rebuts the assertion that the product is no different from that of the prior art and imparts patentability over the known product.

The Federal Circuit also held that a *prima facie* case of

obviousness must establish: (1) some suggestion or motivation to modify the references; (2) a reasonable expectation of success; and (3) that the prior art references teach or suggest all claim limitations. Amgen, Inc. v. Chugai Pharm. Co., 18 USPQ2d 1016, 1023 (Fed. Cir. 1991); In re Fine, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988); In re Wilson, 165 USPQ 494, 496 (C.C.P.A. 1970). However, a claimed composition which is alleged to be identical to the prior art composition can be rebutted by Applicants if something in the composition which makes it distinguishable from the prior art is shown. See Ex parte Clapp, 277 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). In the present application, that difference which distinguishes the presently claimed invention from known films is the requirement of forming the film according to a T-die cast method.

In particular, the amended independent claims 1 and 7 now recite the limitation directed to its making wherein the film for stretch-wrapping is formed of a resin composition containing, as a chief component, an ethylene/(meth)acrylic acid/(meth)acrylic acid ester terpolymer that contains not more than 7% or not less than 5% by weight of a (meth)acrylic acid ester unit, **wherein the forming of said film is effected according to T-die cast method** and the film has a stress in a machine direction (MD) of said film within a range of from 20 to 40 MPa when the film is stretched by 100%, and

a ratio (MD/TD) of stress in the machine direction to the stress in a traverse direction within a range of from 2 to 8 when the film is stretched by 100% in each of said directions and having a film thickness of 5 to 20  $\mu\text{m}$ .

These limitations ensure that films, particularly those used in automatic wrapping food, withstand large stresses when stretched in a machine direction. Conventional stretch-wrapping films, on the other hand, are incapable of withstanding large stresses in the machine direction. Even when stretch-wrapping films are designed to withstand large stresses, a new problem arises. The stronger films cannot easily be cut in the transverse direction.

One of ordinary skill in the art would not have had any motivation to modify the process of forming the compositions of WO '376 within the stretch-wrapping plastic-wrap art to derive a stretch wrapping film which tears easily in the transverse direction while maintaining both its adhesion properties and ability to stretch by changing the process conditions.

The newly added limitation directed to the T-die cast method is not simply optimization of results effective variables but rather a description of the presently claimed film brought about the claimed step of a T-die cast method. That the stress range in a machine direction as opposed to a longitudinal or transverse direction is due to the process conditions of the presently claimed

film was not previously known. WO '376 provides absolutely no indication that the process conditions change the physical properties as presently claimed.

The presently claimed T-die cast method has the further benefit of allowing high speed production of the presently claimed film thereby increasing productivity. The presently claimed film also facilitates automatic wrapping yet offering excellent stretch-wrapping property while favorably adhering to container walls.

The present invention still further meets the need for films that can easily be cut in the transverse direction while maintaining their stretch strength sufficient for automatic wrapping and stretch-wrapping. One of ordinary skill simply would not have been motivated to make the claimed limitations in the absence of any such teachings in WO '376. Since the known product and the claimed product are different wherein the T-die process results in completely different properties, the presently claimed film is not obvious over that teachings of the prior art.

Accordingly, Applicants respectfully submit that they have met their burden to show that the presently claimed polymer compositions are different from those described by WO '376 by making a film according to a T-die cast method. Applicants further submit that the presently claimed invention is not rendered obvious by WO '376 and respectfully request the Examiner to reconsider and

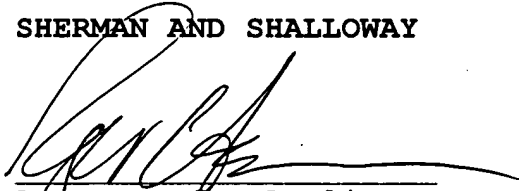
withdraw the § 103(a) rejection.

**CONCLUSION**

In light of the foregoing, Applicants submit that the application is now in condition for allowance. The Examiner is therefore respectfully requested to reconsider and withdraw the rejection of the pending claims and allow the pending claims. Favorable action with an early allowance of the claims pending is earnestly solicited.

Respectfully submitted,

**SHERMAN AND SHALLOWAY**

  
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Attorney for Applicants  
Roger C. Hahn  
Reg. No. 46,376

SHERMAN AND SHALLOWAY  
413 N. Washington Street  
Alexandria, Virginia 22314  
703-549-2282